**Project name: Fresno State Class Info**

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**By:** **Lab 2, Group 2**

**Version: Prototype**

**Team: L2G2**

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# Introduction

The purpose of this document is to present a detailed description of a website called Fresno State Class Info and explain the benefits that current and future students will gain being able to use it. This document was created in order for students and instructors to understand the objectives, goals, and the impact this website can make on Fresno State.

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| **1.1 Product scope** | FSCI will allow Fresno State students to learn what to expect from future classes and professors. This will not only give them a head start but allow easier planning into their futures.  FSCI will be a website for Fresno State students. This website will be designed for ease of use for students by providing tools, navigational links, and information for them to use. The end goal for this website is to become a large database containing all the information that a student may need to succeed. |
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| **1.2 Product value** | Fresno State students will be able to find all the information that they will need in one place, saving them time, research and reducing anxiety. Current and Future students will get accurate information about all their classes and their goals, while also getting information about a professor’s teaching techniques, areas of expertise and more. Students will also get a head start on what classes they may want. |
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| **1.3 Intended audience** | The primary intended audience will be Current and Future Fresno state students. They benefit the most from this website, as they can gather a lot of information about classes, professors and in general what they can expect.  A secondary audience such as counselors and professors, can also benefit from this website. Counselors would be able to gather the information about each instructor and classes which would allow them to make much more informed decisions when consulting students. Professors can benefit as well from the feedback loop created by their peers and could potentially learn and improve their teaching techniques. |
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| **1.4 Intended use** | The users of this website could simply search up keywords into a search bar or go through a list of classes or professors to see which classes they may be interested in or would like to discover. This website will contain information for the users based on what they want to view. |
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| **1.5 General description** | Fresno State Class Info should include information about professors, classes, and a syllabi connected to the classes. Links to other websites that give additional information about a class or professor may be included.  Base model features that will be included are navigational bars and a search function that helps find what someone may be interested in. These navigational bars will be split into two different sections, the class navigation bar and the professor navigation bar. These will then be listed alphabetically based on the class names and professors. The search bar will allow both classes and professors to be searchable and filter according to what is being searched. Additional features will be added, such as a roadmap maker and communications channel if possible.  For the front-end languages that are being used, HTML, CSS, and JavaScript will be used to make the website accessible, detailed, and easy to use. On the back end, SQL will be used to handle the database information and PHP will be used to allow the website to become interactive. |

# 2 Overall Description

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| **2.1 Product Perspective** | This is a self-contained database that will contain:   * Class Information:   The information will include a brief description and what each  student should expect from the class. It will also include the most  recent and available syllabus for the class.   * Professor Information:   The information will include the professor’s name, email, and their  title. A description of how the professor teaches a class along with  which classes they have or are teaching are.   * Helpful Links:   These helpful links can range anywhere from YouTube  videos/channels to web documents that share relevant information  about each class. These links can also include websites that a  particular professor may use often in class.    This diagram gives the basic overview of how Fresno State Class Info will function. The user essentially searches up a professor or a class and they will get the available information about them. |
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| **2.2 Product Functions** | Fresno State Class info provides information about classes and professors to Fresno State students. The main purpose of this project is to reduce the amount of work that students have to do to research about their classes and professors. This group will currently be working as the administrator to control the database and the information being given to the students.    This diagram shows the relationship and the flow between the users, the developers (L2G2), and the website. |
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| **2.3 User Classes and Characteristics** | The users of this website will be able to get enough information about their classes and professors to prepare themselves for the future. They should be able to quickly navigate through the website and find which classes they should take and plan their school year(s) accordingly based on the research they have done on this website.  The features given to the users are:   * Search for a class through a navigational search bar * Search for a professor through a navigational search bar * Read about the class or professor and get relevant information according to what they wanted to find |
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| **2.4 Operating Environment** | Fresno State Class Info will be operational for all Internet browsers. The navigational features provided will be operational for all browsers as well. The only requirement to use this product is an internet connection.  The hardware to use this product:   * Basic input devices * Windows * Mac   The software environment:   * Front-end: HTML / CSS / JavaScript * Back-end: JavaScript / MySQL / Python / Ajax / PHP * Database: SQL |
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| **2.5 Design and Implementation Constraints** | * Professors disapprove of allowing developers to use their information * Syllabi for some classes may be unavailable |

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| **2.6 User Documentation** | Will be available in later versions. |
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| **2.7 Assumptions and Dependencies** | Assumptions:   * No errors in the code * Fast accessible data * Search friendly system * Stable internet connection * Accessible from anywhere with an internet connection * All information on this website is available to all users   Dependencies   * Hardware and software are up-to-date and are able to run the website * The website is fully operational and bug free * All data and information inside the database is accessible and accurate * AWS servers are running and accessible |

# 3 External Interface

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| **3.1 User Interfaces** | * Site will follow W3c HTML5 accessibility standards   + <https://www.w3.org/standards/webdesign/accessibility#wai> * Mobile/tablet/screen reader friendly. * Search bar & language:   A picture containing graphical user interface  Description automatically generated   * Navigation   Diagram  Description automatically generated with low confidence |
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| **3.2 Product Functions** | FSCI will be hosted by Amazon Web Services.   * DynamoDB (the back end that interacts with the front end) * Smartphone, Tablet, PC will be the typical users. |
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| **3.3 Software Interfaces** | * OS - Windows * IO - Android * Front End - These will be used for styling the webpages   + Html - will hold the data on the webpage   + CSS - used for styling the page   + JavaScript - implemented to allow the page to be dynamic * Back End - These will be used for distributing data to our users   + JavaScript - will be used in order to grab data from the database that will be used for the website   + Python - used to scrape data from the web that will be used on the website * Data base - This is where our data will be stored and grabbed when we use our back-end coding   + SQLite |
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| **3.4 Communication Interfaces** | * Communication by use of emails will be implemented in the future.   + This will be in the form of the “Contact us” button at the top of the screen * Communication from the users and the server will be done over HTTP   + This will allow users to make and receive responses through our website |

# 4 System Features

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| **4.1 Buttons** | Clicking on the navigation buttons will provide the user with a list to pick through each divided up by professor. Additionally, they will drop down more information for said user to read about what the class has in store from both the perspective of the professor and the perspective of the student. |
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| **4.2 Search Bar** | This will allow users to search based off of professors that teach a given subject and the class itself. This search functionality will also allow alphabetical filtering of information as well as the most recent updated class. On top of that, it will allow users to filter out by class if they have a desired class to learn more about. |
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| **4.3 Links** | These links will provide more information about the class or instructor. The links provided will send the user to professor websites, videos, or other useful websites that would help the student learn more about the classes or professors. |

# 5 Other Features and Requirements

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| **5.1 Performance Requirements** | The system must be interactive, and the delay should be minimal. There will be a database where we can draw our data from by using SQL, by using SQL Light Studio. The SQL code should have little to no delays. Through the uses of the function is section 4, the operations should be performed and completed within a small amount of time. |
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| **5.2 Safety Requirements** | Fresno State Class Info is not responsible for any possible damage, loss, or harm caused by clicking on any additional links. Be aware and carefully examine each link to ensure your safety. |
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| **5.3 Security Requirements** | Fresno State Class Info is not responsible for any possible malware caused by clicking on any additional links. Be sure to carefully examine each link to ensure your safety. |
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| **5.4 Software Quality Attributes** | * Accessible: Especially for those with special needs and disabilities. * Dynamic: Periodically updated for calendar year events * Availability: Will be hosted on the cloud to be available at all times * Correctness: The data will reflect on previous years * Maintainability: Simplicity leads to an easier dynamic for maintenance. * Reliability: The data should not corrupt on the user * Reusability: The Data should be accessible to any users at any time * Usability: Simple and clear UI/UX design. |